Application No.: 10/591,686

Response to Office Action dated 5/15/08

Docket No: LEO 004 PA

AMENDMENT TO THE SPECIFICATION

Please replace the second full paragraph on page 2 of the English language translation, paragraph [0007] of USPA 2007/0196943, with the following marked-up paragraph:

--Under a first aspect of the present invention the object is attained by means of a process for evaluating the hermeticity of wafer connections, the process comprising the production of a test structure. The test structure is formed on a base wafer by forming a micromechanical sensor structure and an adjacent melt structure with electric strip conductors and first contacting islands that are connected with the micromechanical sensor structure and second contacting islands that are connected with the melt structure, and, thus, a cavity is created by connecting a cover wafer with the base wafer in such a way that the micromechanical sensor structure and the melt structure are located in the cavity. Moreover, the process comprises the impressing of a current in the second contacting islands in order to cause the melt structure to melt for the purpose of the testing of the hermeticity of the cavity, whereby a change in pressure is generated in the inner area of the cavity which is measured as regards its chronological course by means of the micromechanical sensor structure.--

Please replace the sixth full paragraph beginning on page 6 of the English language translation, paragraph [0038] of USPA 2007/0196943, with the following marked-up paragraph:

--FIG. 1 schematically shows the cross-section of the setup of a test structure 100 in the upper part of the picture. The test structure 100 comprises a base wafer 1 and/or a region thereof, which may be provided e.g. in the form of a silicon wafer, a glass wafer or another suitable support. Moreover, a cover wafer 2 and/or a region thereof with recesses 2a above the base wafer 1 is disposed in such a way that a cavity 5 is formed. A pressure-sensitive sensor structure 3 is disposed in the cavity 5, which is connected with corresponding contacting islands 7 by means of strip conductors 6a. The strip conductors 6a are designed in such a way that they

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form an electrical connection from the contacting islands 7 located outside the cavity 5 to the pressure-sensitive sensor structure 3, the hermetic tightness of the cavity 5 being substantially preserved. Moreover, the test structure 100 comprises a melt structure 4 which comprises one or several rated melting points. In the top view of the structure 100 which is represented in the lower part of FIG. 1 the melt structure 5 is shown with two rated melting points 4a, 4b, it being possible to provide one or more than two rated melting points 4a, [[5b]] 4b in other embodiments. The melt structure 4 is made up of metal in an advantageous embodiment, e.g. aluminium, so that, here, the well-proven metallization processes can be used when producing the structure 4, which are known in the art of semiconductor technology. Moreover, the conductor extension in the rated melting points 4a, 4b can be provided in a meander-like fashion. The rated melting points 4a, 4b are connected with corresponding contacting islands 8 via a common electrode 4c and several strip conductors 6b.--

Please replace the third full paragraph beginning on page 7 of the English language translation, paragraph [0041] of USPA 2007/0196943, with the following marked-up paragraph:

-- FIG. 2 shows schematically a top view of a typical wafer connection and/or composite semiconductor wafer 200 as it may be used for manufacturing MEMS structures and test structures of the present invention. Here, several test structures 100 are arranged in a distributed fashion across the wafer 200 in order to be able to possibly ascertain local fluctuations of the entire manufacturing process for the wafer 200. In the represented embodiment one or several MEMS structures 201 are also provided which may also have a cavity similar to the cavity 5 of FIG. 4 (translator's note: should read FIG. 1) Fig. 1, in which a micromechanical sensor element may be arranged. In the represented embodiment a wafer bond 203 of a test structure 100 and an MEMS 201 is shown so that, upon a singling the individual functional elements of the wafer 200, a test structure 100 together with an MEMS 201 is e.g. obtained as a functional unit. In other applications, the test structures 100 are distributed in view of the available chip surface and a statistic

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relevance of corresponding measuring results that is as high as possible. Moreover, the wafer 200 may only have test structures 100 or jointly test structures 100 and MEMS 201, the test structures being individually provided upon singling so that they can then be provided for further intended purposes.--